

**REMARKS**

Claims 1-17, 19-22, 24-41 and 43-58 are currently pending in this application. Claims 1-4, 11, 12, 16, 17, 22, 24, 25, 32, 33, 37, 39-41 and 43-58 are currently before the Examiner, and claims 5-10, 13-15, 19-21, 26-31, 34-36 and 38 have been withdrawn herein. By this amendment, claim 55 has been amended to more clearly describe the invention as claimed in claim 55. Support for these amendments can be found throughout Applicants' specification. Applicants submit that no new matter has been presented by these amendments. Applicants respectfully request reconsideration of the subject patent application in light of the above amendments and below remarks.

**I. Claim Rejections**

In the Office Action, claims 1-4, 11-12, 16-17, 22, 25, 32-33, 37, 39-41 and 43-58 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,201,948 to Cook et al. (hereinafter, "Cook") in view of U.S. Patent No. 6,793,498 to Nunes and further in view of U.S. Patent No. 6,288,753 to DeNicola. Claim 24 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Cook in view of Nunes and DeNicola. Applicants respectfully traverse the rejections.

For the reasons discussed below, Cook, Nunes and DeNicola do not disclose, teach or suggest each and every element of the pending claims. As such, the rejections should be withdrawn and the claims should be allowed. In particular, none of the references disclose, teach or suggest, alone or in combination, each and every element of Applicants' invention as presently

claimed. As such, a prima facie case of obviousness has not been established, and the rejections under 35 U.S.C. §103 should be withdrawn.

For example, Claim 1 of the instant application recites a system for providing an e-learning course, comprising a database and a dynamic rendering engine. The database is for storing a plurality of reusable learning objects and a profile of at least one student that defines a plurality of course requirements of the student. The dynamic rendering engine is adapted and configured to create an individualized course for the student by assembling a subset of the learning objects in response to an assessment item designed to evaluate whether the student has mastered a learning objective. Moreover, the learning objects are unassembled immediately prior to delivery.

Independent claim 17 recites an e-learning tool comprising an authoring tool, a dynamic delivery tool and a learning management system containing a student profile. The authoring tool is operable to create a plurality of learning objects, wherein at least one of the learning objects includes an assessment item for determining the learning objects containing learning objectives familiar to a student. The dynamic delivery tool is operable to dynamically assemble and deliver a course page of instruction embodying at least one learning object, wherein the course page is dynamically assembled by the e-learning tool in response to determining a characteristic of the student by evaluating the assessment item.

Claim 32 recites a system for formulating and distributing an e-learning course, comprising first, second and third software applications. The first software application receives e-learning content and categorizes the content into classes of discrete elements, each discrete

element representing a separate characteristic of the e-learning course and its presentation, the classes of discrete elements having pre-defined behaviors and relationships therebetween. The second software application receives information regarding a student's requirements for the course. The third software application correlates the received information with the classes of discrete elements so as to automatically and dynamically assemble and render the discrete elements as an e-learning course customized to the individual requirements of the student.

Claim 37 recites a method for dynamically delivering a page of e-learning course content to a user. The method includes storing a plurality of discrete learning objects within a database, and assembling and delivering the page including at least one of the learning objects in response to an input from the user in approximately real-time to the user, based upon an assessment item designed to evaluate whether the student has mastered a learning objective.

Claim 43 recites an article of manufacture including a computer readable medium having stored thereon instructions for carrying out a method for creating and delivering an e-learning course. The method includes accumulating course content by a first code segment, defining the course content in terms of discrete, reusable learning objects by a second code segment, determining a subset of the learning objects for assembly into the course immediately prior to distribution to a user based on an assessment item designed to evaluate whether the student has mastered a learning objective by a third code segment, and dynamically delivering the subset of learning objects to the user by a fourth code segment.

Claim 47 recites an e-learning development and distribution tool for providing course content. The tool includes means for accumulating and storing a plurality of discrete software

entities, wherein each entity embodies one aspect of presenting, accessing or explaining the course content. The tool further includes means for assembling and delivering at least one of the discrete entities to at least one student in response to an input from the student in approximately real-time, such that the student receives an individualized version of the course content, wherein the software entities are unassembled immediately prior to delivery.

Claim 51 recites an article of manufacture including a computer readable medium having stored thereon instructions for carrying out a method for delivering e-learning content. The method includes determining which of a plurality of learning objects will be delivered to a user based on an assessment item designed to evaluate whether the student has mastered a learning objective by a first code segment.

Claim 56 recites a method of conducting an e-learning session comprising receiving a student input, in response to the student input, dynamically assembling a set of at least one selected discrete object from a set of multiple selected discrete objects, and transmitting the set of at least one selected discrete object. Claim 57 recites a method of conducting an e-learning session comprising sending at least one question to a subject to be tested, receiving a response to the at least one question, assembling a page based upon the response, and sending the page to the subject. Claim 58 recites a method of continuing an e-learning session after having received a response to a question, the question relating to a first portion of the e-learning session. The method includes adaptively assembling a second portion of the e-learning session based upon the response and transmitting the second portion of the e-learning session.

In contrast to the inventions recited in independent claims 1, 17, 32, 37, 43, 47, 51 and 56-58, Cook describes a system readily comparable to the prior art distinguished in Applicants' background section. Specifically, Cook describes such a "hard wired" e-learning system wherein the course content and the manner in which the course material is applied is fully predetermined prior to a student interacting with the software.

Authoring instructional materials in a course suitable for interactive instruction typically comprises *several steps*, including *decisions about the objects to display to the student*, the *sequencing of these objects*, and the *interactions with the agent*. The first step is the selection of objects which carry the education content for presentation to a student. Objects can include visual display items, such as text, graphics, animation or movies, audible display items, such as voice, audio and so forth. They can include input items known in the computer arts, such as buttons to select, selections to chose from, text to enter, hypertext and hypermedia links, functions to perform with student input, and so forth. The *second step* is the *selection of the sequencing logic for the ordered display of the objects to the student* and the educationally appropriate reaction to student requests and responses. The *sequencing logic* can reference instructional controls set by agent software 108, such as a command to increase example density, and *preferably is chosen in light of principles of educational psychology and practice as detailed above*.

(Cook, Col. 11, lines 17-36 (emphasis added)). The "principles of education psychology... as detailed above can be found at Col. 10, lines 40-45:

The structure and course of interactions 103 between the student and the materials is *preferably governed by paradigms of educational psychology* and sound educational practice, such as are described in the exemplary reference Englemann et al., 1982, Theory of instruction: principles and applications, New York: Irvington Publisher.

Col. 10, lines 40-45. Thus, when read in the proper context, Cook teaches a system that is fully assembled before a student interacts with the course material based on predetermined conditions – i.e., "paradigms of educational psychology."

As such, Cook does not disclose, teach or suggest a system or method including a plurality of discrete components (e.g., learning objects) that are unassembled prior to delivery to the student as recited in independent claims 1, 37, and 47, for example. Moreover, Cook does not disclose, teach or suggest assembling data objects in response to an input from a user, student or subject to be tested as recited in independent claims 37, 47, 56 or 57. By way of further example, claim 58 recites a system for continuing an e-learning session that adaptively assembles a second portion of the e-learning session after receiving a response to a question relating to a first portion of an e-learning session. Cook also does not disclose, teach or suggest determining which of a plurality of learning objects will be delivered to a user based on an assessment item designed to evaluate whether the student has mastered a learning objective as recited in independent Claims 1, 43 or 51. Claim 17 further recites an e-learning tool that assembles a course page in response to determining a characteristic of a student by evaluating an assessment item. Independent Claim 32 recites a system that correlates received information with classes of discrete elements of an e-learning course to dynamically assemble an e-learning course customized to the individual requirements of the student.

Indeed, since the system of Cook is to create a fully preassembled course in a manner “governed by paradigms of educational psychology,” Cook teaches against assembling a course based on a student’s response to an assessment item, for example. Therefore, modifying Cook to function in a manner similar to Applicants’ invention as claimed in Claims 1, 43 or 51, for example, would require changing the principle of operation of the system in Cook and therefore “renders the prior art unsatisfactory for its intended purpose.” MPEP §2143.01. Indeed,

modifying Cook to operate in a manner similar to any of the Claimed elements illustrated in the previous paragraph would lead to a similar result. This is powerful evidence of the non-obviousness of the invention as now claimed.

The other references identified by the Examiner in the Office Action do not remedy the deficiencies of Cook. Specifically, none of the references of record disclose, teach or suggest each and every element of Applicants' claims as described above with reference to Cook.

For example, DeNicola does not create and render course content in response to an input from a user, student or subject to be tested as claimed in independent Claims 37, 47, 56 or 57. Instead, course materials are created by a human instructor using the software. For example, DeNicola teaches an exam building system (Col. 13, lines 8-35) wherein it is the instructor that decides what information appears in the exam. When the exam is administered to the student (Col. 11, line 59 – Col. 12, line 10), although the order of questions on the exam can be jumbled from student to student, the overall content is static since "each student is tested with the same questions but in a different order." DeNicola also discloses building exams and workbooks internally (apparently within the testing organization) between Col. 15, line 62 and Col. 16, line 46. While a "workbook building scripts engine 472" is provided, it is clear that a workbook is "built" in response to input from an "instructor or other authorized administrator" in contrast to a student input, or the input of a user, student or individual to be tested.

Nunes is even less material. Specifically, like Cook, the course content in Nunes is predetermined, and is not determined in response to a user or student input or the input of an individual to be tested, as presently claimed in Claims 37, 47, 56 or 57, for example.

Specifically, Nunes teaches a developmental network 1 including a plurality of nodes 2. (Col. 5, lines 1-5). Each node represents a location where a particular skill can be developed (Col. 5, lines 30-40) using activity objects or modules 7. (Col. 5, line 66 – Col. 6, line 6). The content appears to be static at each node, and does not suggest dynamic rendering of the content, in contrast to the present invention as claimed in Claims 1, 17 and 32, for example. Nunes does disclose a system for assessing the user between Col. 14, line 19 and Col. 15, line 8. Again, like Cook, it appears that the content of this assessment system is fixed and is "hard-wired" rather than dynamic. Instead, a user of the system is intended to progress along "a large number of different, *but logically well-defined developmental paths*." (Col. 15, lines 49-52). It is submitted that this is an express teaching of a "hard wired" system analogous to Cook, and not analogous to the invention as claimed in various claims of Applicants.

Moreover, "[t]he references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention." MPEP § 2141.01. Here, if the rejections were to be maintained, they would necessarily "include knowledge gleaned only from [A]pplicants' disclosure" since whole elements of Applicants' invention as presently claimed are missing from the prior art. Any attempt to fill in those gaps using Applicants' disclosure therefore constitutes impermissible hindsight. MPEP § 2145(X)(A). Thus, Applicants respectfully submit that no prima facie case of obviousness exists with respect to Applicants' claimed invention.



Likewise, the references of record are not properly combinable because there is no motivation to do so. “[T]here must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings.” MPEP § 2145(X)(C). Here, Applicants respectfully submit that there is no suggestion in the references themselves to cause them to be combined to arrive at Applicants’ invention as claimed, particularly since whole elements of Applicants’ claims are absent from the references of record. Moreover, Applicants respectfully submit that one of ordinary skill in the art would not be motivated to combine the references of record to arrive at Applicants’ claimed invention at least because such a combination would require changing the principle of operation of Cook, Nunes and DeNicola. MPEP § 2143.01.

However, even if Cook, DeNicola and Nunes were combined, each and every element of each independent claim would still not be present in such a combination. As such, a prima facie case of obviousness has not been set forth for any of the pending Claims.

It is submitted that each of independent claims 1, 17, 32, 37, 43, 47, 51 and 56-58 patentably distinguish over Cook, Nunes and DeNicola, alone or in combination. Since these references do not disclose, teach or suggest each and every element of independent claims 1, 17, 32, 37, 43, 47, 51 and 56-58, it is submitted that these claims are not anticipated or rendered obvious.

With further reference to claim 24, the Examiner has explicitly acknowledged that no references disclose a virtual campus as claimed. As such claim 24 is allowable. If the Examiner is relying on Official notice to cure this deficiency in the references, Applicants respectfully

request that a reference be provided as required by MPEP § 2144.03(C), since it is not believed that the patentably distinguishing feature added by dependent Claim 24 is "Based Upon Common Knowledge."

Similarly, since dependent claims 2-16, 19-22, 24-31, 33-36, 38-41, 44-46, 48-50 and 52-55 each depend from one of properly allowable independent claims 1, 17, 32, 37, 43, 47 and 51, those dependent claims are also allowable. Moreover, it is respectfully submitted that the claimed subject matter added by dependent claims 2-16, 19-22, 24-31, 33-36, 38-41, 44-46, 48-50 and 52-55 further distinguishes those claims from the art of record.

Based on the above amendments and remarks, Applicants respectfully request for the rejections under 35 U.S.C. § 103 to be withdrawn.

Formal Request For Interview

Applicants respectfully request an interview with the Examiner to discuss the present application and the prior art of record. Applicants' attorney of record Brian Pollack may be reached at (203) 353-6876 to schedule a mutually convenient date and time and to provide assistance or additional information if required.

**CONCLUSION**

Applicants respectfully submit that none of the prior art of record, alone or in combination, discloses or suggests the invention as claimed. Based upon the foregoing, favorable consideration of the pending claims is respectfully requested.

Applicants submit that this Amendment After Final and the accompanying Remarks do not raise new issues for consideration or necessitate the undertaking of any additional search of the art by the Examiner, and thus may properly be entered into the record. It is submitted that the Amendment to claim 55 places the Application in better condition for appeal. In addition, the remarks above relating to the Nunes and DeNicola references were not earlier presented because they relate to rejections first raised in the Final Office Action. Applicants therefore respectfully submit that these Remarks "may be admitted" because "a showing of good and sufficient reasons why they are necessary and were not earlier presented" has been made, pursuant to 37 C.F.R. § 1.116 and M.P.E.P. § 714.12.

As such, this Amendment After Final should therefore allow for immediate entry by the Examiner in preparation for an immediate Appeal by Applicants. Applicants also submit that entry of this Amendment After Final and the accompanying remarks would place the present application in better form for appeal, should the Examiner dispute the patentability of any of the pending claims.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105, under Order No. 62434(49004).

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Respectfully submitted,



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